## Claims

- 1) Coaxial cannula that can be used in tissue, in which for removing tissue are a biopsy needle unit with specimen removal space and a longitudinally movable specimen separating device that coaxially encloses the biopsy needle on the exterior wall, and whereby the coaxial cannula has on its proximal end a sealing element that encloses the space between the interior wall of the coaxial cannula and the exterior wall of the specimen separating device, characterized in that the sealing element (3) releases the air outlet when the needle unit is inserted and prevents air from entering after the needle unit has been positioned and a vacuum has been created in the biopsy needle interior space.
- Coaxial cannula in accordance with claim 1, characterized in that a hose-type sealing element (3) is pushed over the proximal end of the coaxial cannula tube (1), the interior diameter of which is dimensioned so that it leaves open a slight gap between the sealing element and the biopsy needle unit (9), and in that the elasticity of the sealing element (3) is such that, given slight underpressure in the gap between the exterior wall of the needle unit (9) or the specimen separating device (21) and the interior wall of the coaxial cannula, the proximal end of the sealing element comes to act as a seal against the needle unit or the specimen separating device.
- 3) Coaxial cannula in accordance with claim 1 or 2, characterized in that when employing a biopsy device with a guide roller (13), provided on the distal surface of the guide roller is a stopper (14) with sealing elements (16, 17), which [stopper] is inserted into a counterpiece (15) on the proximal end of the cap of the coaxial cannula such that the opening is closed shortly prior to placing the distal surface of the guide roller on the proximal surface of the cap of the coaxial cannula.
- 4) Coaxial cannula in accordance with claim 1, characterized in that, when using an intermediate piece (18) between the distal end face of the guide roller

WO 2004/086977 PCT/EP2004/003327 8

with stopper (14) and the proximal end face of the cap with counterpart, the intermediate piece has on its proximal side a countercoupling part as a type of interior bore into which the stopper of the guide roller (13) with sealing elements is inserted and in that on the distal side the intermediate piece (18) has a stopper with sealing elements [sic] (19), which [stopper] is inserted into the proximal-side counterpiece of the cap of the coaxial cannula.